Multi-Sectoral Nutrition Strategy
Global Learning and Evidence Exchange

WASH and Nutrition

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1. In the Lancet Series of 2013, what percent of stunting could be averted in high-burden countries by scaling 10 nutrition-specific interventions to 90% coverage?

a) 20%

b) 45%

c) 70%

Bonus Question: What was voted the greatest medical milestone of the last century and a half?


The causes of stunting are multifaceted - and linked

More evidence (and summaries of evidence, and policy briefs) coming out daily:

Maternal & Child Nutrition, May 2016

More research on the way:

USAID NOURISH trial - Cambodia
WASH Benefits trial - Bangladesh
Sanitation and Hygiene Applied Research for Equity (SHARE) and Sanitation, Hygiene, Infant Nutrition Efficacy Project (SHINE) - SubSaharan Africa
## Summary of Evidence

Source: Tufts/Oxfam WASH and Nutrition Series Tech Memorandum 3

<table>
<thead>
<tr>
<th>Intervention $\rightarrow$ Outcome</th>
<th>Quality of Evidence</th>
<th>Strength of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Defecation $\rightarrow$ Stunting</td>
<td>Econometric analysis/DHS</td>
<td>Strong when OD high</td>
</tr>
<tr>
<td>Water and Hygiene $\rightarrow$ Stunting</td>
<td>Mostly observational studies</td>
<td>Suggestive</td>
</tr>
<tr>
<td>WASH $\rightarrow$ Stunting/Wasting</td>
<td>Mostly observational studies and biological mechanisms</td>
<td>Strong on stunting, suggestive on wasting</td>
</tr>
<tr>
<td>Undernutrition through diarrhea and enteropathy $\rightarrow$ Stunting/Wasting</td>
<td>Observational studies- and biological mechanisms</td>
<td>Strong on stunting, suggestive on wasting</td>
</tr>
<tr>
<td>Water treatment and enhanced nutritional recovery $\rightarrow$ Improved nutritional status</td>
<td>Experimental studies</td>
<td>Suggestive</td>
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</tbody>
</table>

“There is sufficient evidence (from a variety of studies) of a link between WASH programming and nutritional outcomes – particularly for stunting – to promote WASH as nutrition-sensitive interventions.”
“Connect the Boxes” Task

- Each person will get a handout of the framework for how WASH mediates nutrition - but there are no lines!
- Complete the diagram, using solid lines for direct pathways, and dotted lines for indirect pathways, to demonstrate how WASH mediates nutritional status (5 minutes)
- Can you think of other elements that should go in this diagram?
WASH Pathways for Nutrition

- Low water quantity
  - Inadequate water storage in home
  - WASH cost
    - High cost of water and/or sanitation services
  - Unprotected water source

- Unimproved sanitation, distance to sanitation
  - Poor hand-washing
  - Less money for food

- Less time for food preparation

- Fecal contamination of home
  - Nematode infection
  - Environmental Enteropathy
  - Diarrhea

- Unprotected water source
  - Poor water quality

- Poor nutritional status

Source: O. Cumming, London School of Tropical Medicine and Hygiene, 2013
But - WASH investments have to be sustainable...

Lack of community organization, commitment and capacity to adequately design and site system, maintain technology, and protect water source.

Rural Water Borehole with Manual Pump
What is Sustainable WASH?

Sustainable WASH is achieved when country partners and communities take ownership of the service and there are local systems to deliver inputs needed to maintain results and deliver impacts beyond the life of project funding.
Ex-post evaluation of FFP WASH Interventions
(3-5 year ex-post)

- Access to improved latrine:
  - Improved: 3
  - Sustained: 4
  - Deteriorated: 2

- Access to improved water source:
  - Improved: 4
  - Sustained: 2
  - Deteriorated: 2

- Households purifying water:
  - Improved: 2
  - Sustained: 1
  - Deteriorated: 4

- Households with handwashing observed:
  - Improved: 2
  - Sustained: 0
  - Deteriorated: 6

# of projects: 0, 2, 4, 6, 8, 10, 12
How do we program for sustained WASH services?

- Good governance and institutions
- Social and Behavior change
- Environmental sustainability
- Financial viability: Life Cycle Costing!
- Appropriate technology

1. Table groups

2. Each group will look at a “death spiral” of a water or sanitation service

3. Identify an intervention for each step along the spiral that could halt or reverse the negative spiral of poor services (7 minutes)

4. Extra credit if you identify an intervention that would help resolve multiple steps of the spiral!
Sanitation Services Death Spiral

1. Low access to improved sanitation in urban and rural areas
2. Ministry of Health and health staff support health promotion but do not have a behavior change strategy for stopping open defecation
3. Family members are constantly sick—household income is used to pay for medicines, and absence from work and school means lost wages and potential
4. The local hardware store charges 20X the average monthly household income for a complete set of latrine materials. Sales are slow.
5. There is no access to financing to support households in investing in sanitation
6. Nobody is monitoring sanitation conditions in the communities
7. NGOs provide subsidies to a few households. Other see this and decide to wait on investing in sanitation
8. A donor offers some funding. The Ministry of Environment leads the discussions and requests support to construct expensive treatment facilities and sewer network in the capital city.
9. Small provider vacuum trucks empty pits and discharge into water bodies in an unregulated environment
10. There is a cholera outbreak! The government responds with a huge toilet construction campaign
Rural Water Services Death Spiral

1. The community has very limited access to water. They use a stream that is 5 Km away.

2. A donor offers to provide water and its consultants select the site. A borehole is dug and a pump installed.

3. The consultant conducts a community meeting, trains a community member he selects and leaves a manual.

4. A neighboring community hears about the water and women come early in the morning to get water. This creates conflict.

5. Something goes wrong with the pump. The trained community member thinks a part is needed. No one has money for the part.

6. Money is slowly raised, but people question whether all families have to pay the same amount.

7. Meanwhile the trained community member has left for another town.

8. No one else is sure what part to get or how to fix the pump.

9. Women and girls have started to use the stream again.

10. The Donor brings the Ambassador on a site visit. The donor pledges to bring the same team back to fix the pump.
One more time...

WASH Infrastructure ≠ Access to service

Access to service ≠ Sustained service

Sustained service ≠ Anticipated health, economic and other benefits from investments

Remember the Factors of Sustainability!
“What does a comprehensive hygiene behavior change strategy look like?”

1. Table groups
2. Each group will look at a blank framework to support adoption of a key WASH behavior
3. Fill in the Factors of Sustainability across the top
4. Brainstorm interventions under each Factor that would support correct, consistent adoption of the desired behavior (7 minutes)
### Comprehensive Behavior Change Strategy

**Ex:** Mothers of small children wash hands with soap before preparing food, and air dry

<table>
<thead>
<tr>
<th>Technical</th>
<th>Governance/Institutional</th>
<th>Social/Behavioral</th>
<th>Financial/Life Cycle Costs</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soap</td>
<td>Creation of water committees</td>
<td>Demos</td>
<td>Social marketing</td>
<td>Water sources (quantity and quality)</td>
</tr>
<tr>
<td>Basins</td>
<td>Community participation</td>
<td>Flipcharts</td>
<td>Voucher system</td>
<td>Location of latrines with respect to water source</td>
</tr>
<tr>
<td>Sinks</td>
<td>Engage women AND men</td>
<td>Contest for “healthy families”</td>
<td>Water committee collection</td>
<td></td>
</tr>
<tr>
<td>Soap making kits</td>
<td>Health Agents Professional/service</td>
<td>Complete education kit with games</td>
<td>Small grants</td>
<td></td>
</tr>
<tr>
<td>Plumbing supplies</td>
<td></td>
<td>Theater, songs</td>
<td>Public private partnerships with soap</td>
<td></td>
</tr>
<tr>
<td>Installation of handwashing taps and sinks near latrines and kitchens</td>
<td></td>
<td>Sports star</td>
<td></td>
<td></td>
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</tbody>
</table>
“How-to” Integrate?

Co-location?

Program Integration?

Some other ways:
- Joint design?
- Joint budgeting?
- Interdisciplinary teams?
- Consolidate reporting?

WHO-USAID ‘Practical Solutions’ publication:
www.who.int/water_sanitation_health/publications/washandnutrition/en/
What is “integration”? A whole spectrum of implementation modes

- Cooperation
- Collocation
- Coordination
- Collaboration
- Convergence

Source: USAID CDCS
Possible WASH-Nut Integration Points

Nutrition Counseling

Clinics (moms as catalysts)

Schools (kids as catalysts)

Savings Groups, Agriculture & Livelihood Activities
Integrate Program Content and Messages

**Handwashing AND**

- Establish & maintain handwashing station(s) near latrine and food prep area
- Demonstrate and encourage handwashing with soap before food preparation
- Encourage handwashing of child hands with soap before feeding and self-feeding
- Demonstrate and encourage washing child’s face

**Complementary Feeding**

- Promote age specific quantity and frequency of food
- Promote food diversity
- Encourage the use of family food
- Urge continued breastfeeding
Address Demand AND Supply for WASH Products and Services

**Availability**

WASH products and services available – agricultural input stores, local government, regulatory framework…

**Access**

Increase efficiency, reduce cost of services, address access to financing and business skills to make WASH products and services available

**Utilization**

Safe drinking water, hygiene and sanitation services available, accessible, and are used correctly and consistently to reduce pathogen exposure

Stability of all 3 pillars

Food Security
Gender and Equity in WASH
Thanks and stay in touch!

BKK Nut GLEE

FEEEEECES!
WASH and WASH-Nut Resources

- Dan Campbell USAID/CKM contract dcampbell@waterckm.com
- Maternal and Child Nutrition, May 2016
- http://www.washplus.org/wash-nutrition
- http://www.who.int/pmnch/knowledge/publications/summaries/ks30/en
- WASH Advisors at USAID/W